

knowing nothing of the business must be taught, and as they usually commence for themselves as soon as really competent, this instruction must be given again and again. After a few weeks' instruction some are able to do nicely the remainder of the season with occasional looking after. Women are also employed, and one who did not know a queen from a drone when she commenced, took entire charge of 116 colonies the second season.

At each apiary there is a building containing a honey room where clamps of honey are temporarily stored, and a work room where fixtures not in use are also housed. In each yard one hive stands on scales, of which a close watch is kept after the clover and basswood blossoms open. On the front of every hive in plain black figures is the colony's number, while inside is a record of the colony, its origin, age of queen, date at each examination that season and their condition when examined. This is written in abbreviated characters on a piece of section or smooth board and laid on the packing. The apiarist also keeps in a book a list of the colonies casting swarms, and of those requiring special attention at a certain time. The wings of all queens are clipped to prevent their going off with the swarms. When the latter attempt to leave, they are caught by an arrangement consisting of a wire cloth cage fastened to a pole. It is made to stand anywhere by two legs, which fold up when not in use. A sufficient number of these are always at hand. When a swarm issues, the queen is caught on the ground near the hive and placed in the cage of the catcher, which is stood or held in the midst of or near the flying swarm, and the bees soon settle upon it. They are then left, and attention is given to the others, which usually issue at about the same time. If the swarm has gone some distance, or clustered in the top of a small tree, it will soon return, as it is without a queen. So the catcher containing their queen is stood in front of the hive from which they came, and as they return they find her and cluster upon it. To make this more certain, the entrance of the old hive is covered with a cloth. This plan differs from that of most bee-keepers and enables Mr. Manum to quickly handle many swarms. In hiving, when time is more plenty, about a third of each swarm is shaken back in front of the old hive and the balance of two or three swarms, with one queen, is hived in a new hive. As this makes a powerful working colony in the new hive, abundant room in sections is immediately given.

A close watch is kept of the apiary, and more storage room is added as fast as used to advan-

tage, and the filled clamps are removed as soon as they are completely sealed. A large crop can be cut off from communication with the brood chamber in a short time, and when free from bees is carried to the honey room and afterward carted to the central honey house. It is then scraped clean of propolis by women and girls, and after being graded is stored in the honey room to ripen. In the fall, wood sides of white poplar instead of glass are fastened to each section, and they are shipped to market in white poplar crates holding two one-pound sections. Sections full of nice white comb, those full of darker combs and those light in weight, are each crated separately and the crates are marked "Green Mountain," "Comb Honey" and "Light Weight," according to contents. A few of the very best and most perfect are selected from the best quality and go as the "Snow Flake" brand.

As most of the crop is secured as surplus and but little is gathered after its removal, that remaining below is no more than the bees need during the season. Therefore, to keep them alive until spring, each colony must in early fall have its ration of sugar syrup. This season twenty-eight barrels of the best granulated sugar were required to insure sufficient winter food. For feeders maple syrup cans with small holes punched in their bottoms are used. Three short legs of tin raise them enough to give the bees room to get at the holes. These cans are filled with syrup and set over a hole in the cover of the hive, and are renewed until the proper amount of food is consumed.

After the honey season, instead of a constant attendant at the out-yards, frequent visits are made, as in the spring, and are continued until the bees are snug for winter. Then an occasional trip is made on a warm day when the bees can fly to see that all entrances are clear.

Mr. Manum, has at present, about 700 colonies in eight different yards. The number in each is limited to 125 in the fall. The colonies in excess of this number are either sold or carried to a new location. For this work a double and single team are used. By the use of racks which hold a second tier the former takes fifty colonies and the latter twenty-three colonies. Before loading, the frames are immovably fixed and a sheet of muslin is tacked over the brood chamber to give air, while in very warm weather a rim covered with wire cloth is necessary to their safety. Mr. Manum's bees are mostly Italians, although in some apiaries, there is a trace of Black and Holy Land blood. He is about to test a few Carniolan queens. The working queens are reared from the best Italian colonies, which are selected out of this large